Claims

1. Method for use in conjunction with a spraying apparatus, especially a fire extinguishing apparatus, said apparatus comprising a source of a medium, a pump means and means for passing at least a proportion of the medium to at least one nozzle (4), **characterized** in that at least some of the medium which is not passed to the nozzle is re-circulated back to the suction side of the pump means (3) when necessary and that, at least when necessary, at least some of the medium being re-circulated is passed into a discharge pipe (15) before the pump means (3).

2. Method according to claim 1, **characterized** in that the flow into the discharge pipe (15) is restricted.

3. Method according to claim 1 or 2, **characterized** in that at least some of the medium being re-circulated is passed into the discharge pipe (15) if the temperature of the medium reaches a set value.

4. Method according to any one of claims 1 - 3, **characterized** in that the passage into the discharge pipe (15) is opened and/or closed by means of a valve element (7) controlled on the basis of the temperature of the medium.

5. Method according to any one of claims 1 - 4, **characterized** in that the flow rate of the medium being re-circulated is reduced when the flow rate of the extinguishing medium supplied to the nozzles (4) is increased.

6. Method according to any one of claims 1 - 5, **characterized** in that the flow rate of the medium being re-circulated is increased when the flow rate of the extinguishing medium supplied to the nozzles (4) is reduced.

7. Method according to any one of claims 1 - 6, **characterized** in that the medium is a water-based liquid.

8. Method according to any one of claims 1 - 7, **characterized** in that, in the method, the medium is circulated at a high pressure.

9. Apparatus for use in conjunction with a spraying apparatus, especially a fire extinguishing apparatus, said apparatus comprising a source of a medium, a pump means and means for conducting at least some of the medium to at least one nozzle (4), **characterized** in that the apparatus comprises means for re-circulating at least some of the medium from the pressure side of the pump means (3) to the suction side of the pump means when necessary, and that the apparatus comprises means for passing at least some of the medium being circulated into a discharge pipe (15) at least when necessary.

10. Apparatus according to claim 9, **characterized** in that the pump means (3) is a constant-volume pump, especially a piston pump.

11. Apparatus according to claim 9 or 10, **characterized** in that the apparatus comprises a passage (13, 14) from the pressure side of the pump means (3) to its suction side, said passage being provided with a pressure valve (6).

12. Apparatus according to any one of claims 9 - 11, **characterized** in that the apparatus comprises a valve element (7) for opening passage into the discharge pipe (15).

13. Apparatus according to any one of claims 9 - 12, **characterized** in that the apparatus comprises means (8) for opening and/or closing the valve element (7) on the basis of the temperature of the medium.

14. Apparatus according to any one of claims 9 - 13, **characterized** in that the pump means (3) is a high pressure pump.

15. Apparatus according to any one of claims 9 - 14, **characterized** in that the discharge pipe (15) is provided with a throttle element (9).

16. Apparatus according to any one of claims 9 - 15, **characterized** in that the liquid flow passage (14) is provided with a second check valve (16) to prevent the admission of the medium being pumped from the suction side of the pump directly into the discharge pipe (15).